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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,973	05/22/2001	John H. Westerbeke JR.	00637-025001	9803

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EXAMINER

BENTON, JASON

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/862,973

Applicant(s)

WESTERBEKE, JOHN H.

Examiner

Jason Benton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-25 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/24/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 and 13-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loweg.

The patent by Loweg (4,091,616) shows an exhaust manifold cooling jacket (15) comprising a housing to be attached to an internal combustion engine. The housing defines a cavity sized to enclose an exhaust manifold of the engine and form an insulating space between the exhaust manifold and housing, as attached to the engine. A coolant passage is placed therein for receiving liquid coolant from an inlet of the jacket and for flowing the coolant through the cooling jacket. An exhaust passage (24) extends between an inner manifold interface surface of the housing and an exhaust elbow interface surface of the housing, for forming a sealed exhaust conduit for conducting a flow of exhaust from the exhaust manifold through the housing. A catalytic conversion element (25) is disposed within the housing.

The patent by Loweg indicates that the housing is attached to the internal combustion engine, but does not specify the cylinder head. It is the view of the examiner that it would be an obvious choice of design to one skilled in the art to

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fasten the housing to the cylinder head. At the very least it is inherent that the housing is "attached", indirectly if not directly, to the cylinder head.

The cooling jacket housing is in the form of a shell having an open side sufficiently large to permit the housing to be placed about the exhaust manifold of the engine with the exhaust manifold.

The open side of the housing comprises a rim extending about the open side and lying in a single plane to form a planar block interface surface.

The rim of the housing is arranged to be coplanar with a block interface surface of the exhaust manifold for engaging a backing plate mounted between the cylinder head and exhaust manifold and extending laterally beyond the exhaust manifold.

The cooling jacket housing is sized and constructed to directly contact the exhaust manifold only at the inner manifold interface surface.

The coolant passage comprises a single enclosed, cup-shaped cavity extending across one broad face of the housing and into multiple sides of the housing.

The housing further defines a coolant outlet extending from the coolant passage through the exhaust elbow interface surface adjacent the exhaust conduit.

The housing is in the form of a unitary casting.

The housing defines at least one mounting hole (Fig. 1) extending through the housing adjacent the exhaust passage and arranged to align with a mounting hole on the exhaust manifold, for receiving a threaded fastener to attach the housing to the cylinder head via the exhaust manifold.

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The mounting hole of the housing is further arranged to align with a corresponding mounting hole on an exhaust elbow placed against the exhaust elbow interface surface to receive exhaust flow from the exhaust conduit, for simultaneously attaching both the housing and the exhaust elbow to the exhaust manifold.

The cooling jacket is constructed to isolate the liquid coolant from any direct contact with the exhaust manifold.

The insulating space (11) is filled with a conductively insulating material.

Allowable Subject Matter

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Benton whose telephone number is (571) 272-4838. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Cronin can be reached on (571) 272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JB

Noah P. Kamen
Primary Examiner

